

## **REMARKS/ARGUMENTS**

Reconsideration of this application is requested. Claims 23-44 are in the case.

### **I. THE PRIOR ART REJECTIONS**

Claims 23-44 stand rejected under 35 U.S.C. §102(e) as allegedly anticipated by or, in the alternative, under 35 U.S.C. §103(a) as allegedly obvious over Farley *et al.* (US 2003/021 5659) (Farley). Claims 23-25, 28, 30 and 37-44 stand rejected under 35 U.S.C. §102(e) as allegedly anticipated by Ohlsson (US 2004/0053022). The rejections are respectfully traversed.

The claimed invention is directed to a polymer blend comprising (a) 1 - 99% by weight of a copolymer of ethylene and an alpha olefin having from 3 to 10 carbon atoms, in which copolymer has (i) a density in the range 0.905 to 0.940 g cm<sup>-3</sup>, (ii) a melt elastic modulus G' (G'' = 500 Pa) in the range 10 to 150 Pa, and (iii) a melt index (190°C/2.16 kg) in the range 5 to 50 g/10 ml; and (b) from 1 - 99% by weight of a low density polyethylene (LDPE) comprising a homopolymer of ethylene having a density from 0.914 to 0.928 g cm<sup>-3</sup>, wherein the sum of (a) and (b) is 100%.

The present invention claims blends of (a) a copolymer of ethylene and  $\alpha$ -olefin and (b) a homopolymer of ethylene. The present blends have been found to be particularly useful for extrusion coating applications (see page 13, line 29 - page 14, line 9 and claims 43 and 44). Neither the blends of the present invention, nor their application for extrusion coatings, is disclosed or suggested by Farley nor disclosed by Ohlsson.

The Action asserts that the Chai declaration is based on the extrapolation of a single data point with respect to the CDBI parameter. Specifically, the Action considers that the declaration asserts a range of 55 – 70% and that this range has not been established. Applicant respectfully disagrees.

The range of 55 – 70% is based on the disclosure on page 2 para [0012] of Farley. Farley describes suitable copolymers of ethylene and alpha-olefin comonomers as *inter alia* having a CDBI of from 55 – 70%. This is further seen from the disclosures in paragraphs [0013] to [0017], the latter paragraph reporting a range of 50 – 85%. Farley further reports (page 22, Table IV) the CDBI for sample polymers A and G as 64.5 and 55.3 %, respectively. In addition, para [0273] on page 21 of Farley clearly discloses that these 2 samples are inventive examples, whereas sample B is a comparative polymer. Finally, claim 1 of Farley requires a CDBI of 55 – 70% as feature (c).

From the above, it is clear that Farley as a whole describes polymers with a range of CDBI values. Hence, the position in the Action that the Chai declaration asserts this range based on a single data point is not correct.

The Chai declaration provides clear evidence that a copolymer of the present invention exhibits a CDBI of 86% which is much **higher** than those of Farley. The Chai declaration therefore constitutes clear evidence that the present invention is not anticipated or suggested by Farley. Withdrawal of the rejection over Farley is respectfully requested.

With respect to Ohlsson, the Action does not refer specifically to the Chai declaration. However, the Action makes the comment regarding observations made on an isolated example. Applicant again respectfully disagrees.

The abstract of Ohlsson reports a melt index ratio  $I_{21}/I_2$  of 30 – 80. Copolymer A according to the present invention has been analyzed and found to exhibit a value for this parameter of 18.5 (Chai declaration, last page in the paragraph discussing Ohlsson), which is well **outside** the range disclosed in Ohlsson. While this value for  $I_{21}/I_2$  is not discussed in the application, as indicated previously, it is extremely difficult to reproduce the examples of either Farley or Ohlsson and then measure the claimed parameters against the resultant polymers. Ohlsson clearly does not anticipate the presently claimed invention.

In summary, the Chai declaration reports on measurements of key parameters reported in Farley (CBDI) and  $I_{21}/I_2$  (Ohlsson) against a polymer of the present invention, namely copolymer A, and the results presented in the Chai declaration clearly show that the copolymers suitable for use as component (a) of the present invention are **not** disclosed or suggested by Farley and Ohlsson. This is supported by earlier comments with respect to the type of catalyst systems used for the preparation of the polymers of the prior art and those in the present invention.

Absent any disclosure or suggestion in the cited prior art of component (a) of the presently claimed invention, it is clear that the outstanding prior art rejections should be withdrawn. Such action is respectfully requested.

**II. CLAIM AMENDMENTS**

The claims have been amended to correct obvious typographical errors. No new matter is entered.

Favorable action is awaited.

Respectfully submitted,

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